

in fact we have never before experienced such severe electrical disturbances as has been the case during the past two months * * *.

RAINFALL AT PORTO VELHO, BRAZIL.¹

The monthly and annual precipitation at Porto Velho, Brazil, as recorded by the Madeira Mamore Railway Co. has been published;² we have now received the statistics for 1921 and the first 6 months of 1922, as in the table below.

BIBLIOGRAPHY.

RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

C. FITZHUGH TALMAN, Meteorologist in Charge of Library.

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

Baldit, Albert.

Etudes élémentaires de météorologie pratique. 2nd ed. Paris. 1922. xiii, 428 p. illus. 25 $\frac{1}{2}$ cm.

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Rainfall of the Bombay presidency for years previous to 1891. v. 6. Bombay. 1922. 658, 6 p. map. 33 cm.

Carton, P.

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Claxton, T. F.

Winds of Hongkong (appendix to Hongkong observations, 1921). Hongkong. 1921. 105 p. plates. 34 $\frac{1}{2}$ cm.

Freybe, O.

Praktische Wetterkunde. Eine gemeinverständliche Anleitung zur Benutzung von Wetterkarten in Verbindung mit örtlichen Wetterbeobachtungen. 2te Aufl. Berlin. 1922. 82 p. 23 $\frac{1}{2}$ cm. Schulwetterkunde. Berlin. 1922. 60 p. illus. 19 cm.

Gautier, Raoul.

Nouvelles mesures des chutes de pluie et neige au Grand Saint-Bernard. Genève. 1922. p. 343-353. illus. 23 cm. (Extr.: Arch. sci. phys. et natur., 5^{me} per. v. 4. Sept.-Oct., 1922.)

Granqvist, Gunnar.

Ström- och windobservationer vid fyrekeppen. 1921. Helsingfors. 1922. 40 p. fig. 24 $\frac{1}{2}$ cm. (Ström- und Windbeobachtungen an den Leuchtschiffen 1921.) [Havsforskningsinstitutets skrift, no. 13.]

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Morize, Henrique.

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Östman, C. J.

Recherches sur les grands vents près de la côte suédoise du Golfe de Botnie. Stockholm. 1922. 47 p. diagr. plates. 32 $\frac{1}{2}$ cm.

Paris. Services techniques d'hygiène.

Météorologie. T. 3. Paris. 1922. 119 p. illus. 25 $\frac{1}{2}$ cm. [Reprinted from Annales des Services techniques d'hygiène de la ville de Paris. Compte rendu des travaux de 1913 à 1919.]

Monthly and annual precipitation (inches) for Porto Velho, Brazil.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1921.....	24.52	11.30	18.83	12.13	10.22	2.63	0.51	4.37	2.53	8.67	14.67	20.36	130.73
1922.....	28.57	24.97	32.71	9.41	4.71	4.15

¹ Communicated by Dr. F. L. Hoffman, Prudential Life Insurance Co.

² MO. WEATHER REV., Aug., 1922, 50: 416.

—A. J. H.

Sievers, F. J., & Holtz, H. F.

Influence of precipitation on soil composition and on soil organic matter maintenance. Pullman, Wash. 1923. 32 p. map. 23 cm. (Washington. State coll. Agric. exp. sta. Bulletin no. 176. February, 1923.)

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Waibel, Leo.

Winterregen in Deutsch-Südwest-Afrika. Eine Schilderung der klimatischen Beziehungen zwischen atlantischem Ozean und Binnenland. Hamburg. 1922. vi, 112 p. illus. plates (part fold.) 29 cm. (Hamburg. Univ. Abhandl. Gebiet Auslands-kunde. Bd. 9. Reihe C. Naturwissenschaft. Bd. 4.)

Wallén, Axel.

Rapport sur l'organisation de la météorologie agricole en Suède, présenté à la 6^{ème} assemblée générale de l'Institut international d'agriculture à Rome, mai 1922. Rome. 1922. 6 p. 24 cm.

Ward, Robert DeC.

Tornadoes of the United States. Washington. 1920. p. 139-145. illus. plate. 24 $\frac{1}{2}$ cm. (Smithsonian report, 1918. Pub. 2552.)

RECENT PAPERS BEARING ON METEOROLOGY AND SEISMOLOGY.

C. F. TALMAN, Meteorologist in Charge of Library.

The following titles have been selected from the contents of the periodicals and serials recently received in the Library of the Weather Bureau. The titles selected are of papers and other communications bearing on meteorology and cognate branches of science. This is not a complete index of all the journals from which it has been compiled. It shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau.

Algeria. Service météorologique. Cahier, Alger. Année 1923. no. 1.

Lasserre, A. La formule psychrométrique de Regnault et celle de Mr. Angot devant le psychromètre du P. de Foucauld. p. 1-9.

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Petitjean, L. Surfaces de discontinuité en Algérie et au Sahara. p. 13-16.

American meteorological society. Bulletin. Worcester, Mass. v. 4. March, 1923.

Bavendick, F. J. The blizzard of February 13-14, 1923, in the northern plains. p. 45.

Clayton, H. H. The use of observations of solar phenomena in weather forecasting in Argentina. p. 34-37. [Abstract.]

Clayton, H. H. Variations in solar radiation and the weather. p. 33-34. [Abstract.]

Eshleman, Cyrus H. The weather and epidemics. p. 48.

Fergusson, S. P., & Covert, R. N. The measurement of the wind. p. 41-44. [Abstract.]

McAdie, Alexander. Dampness indoors and out. p. 38-40. [Abstract.]